

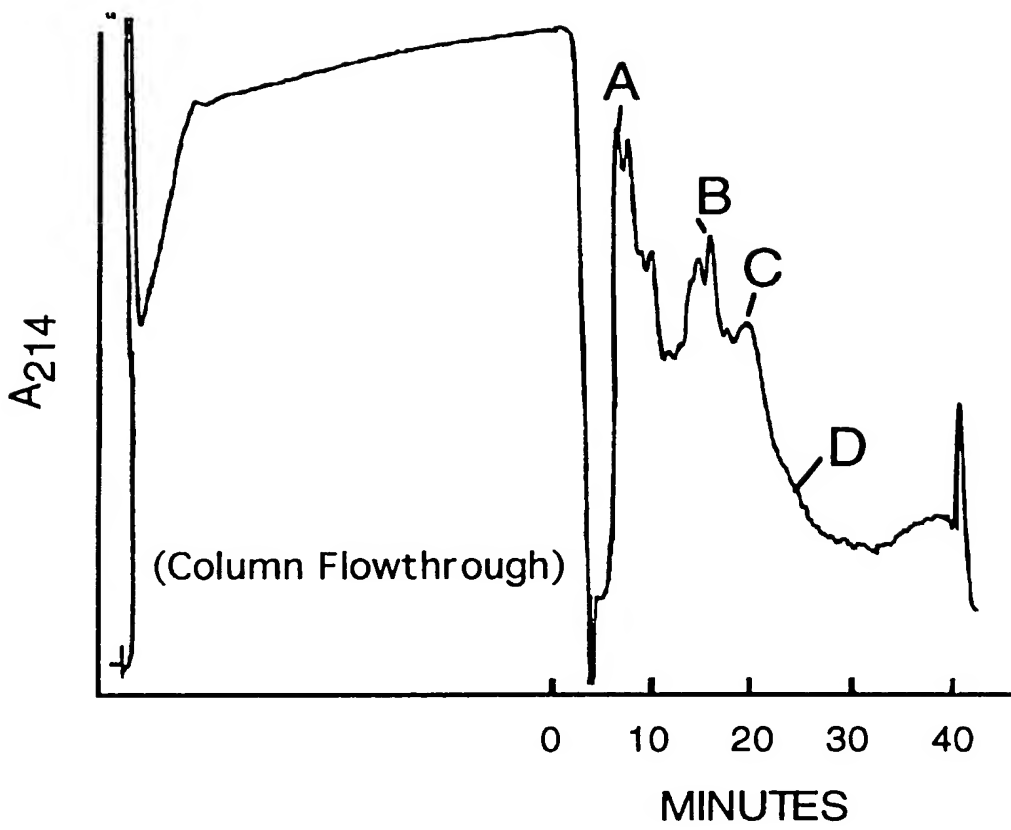
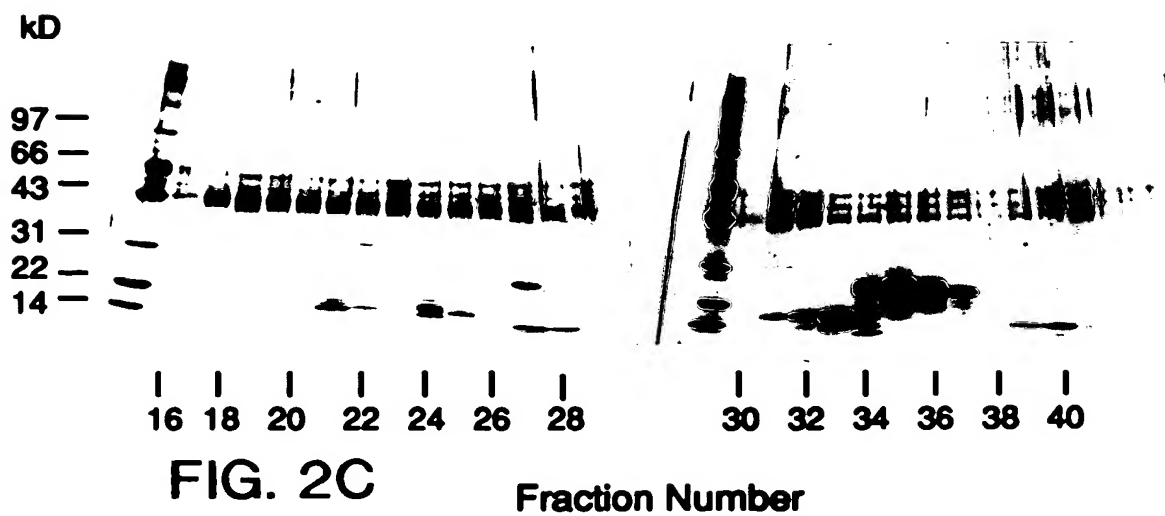
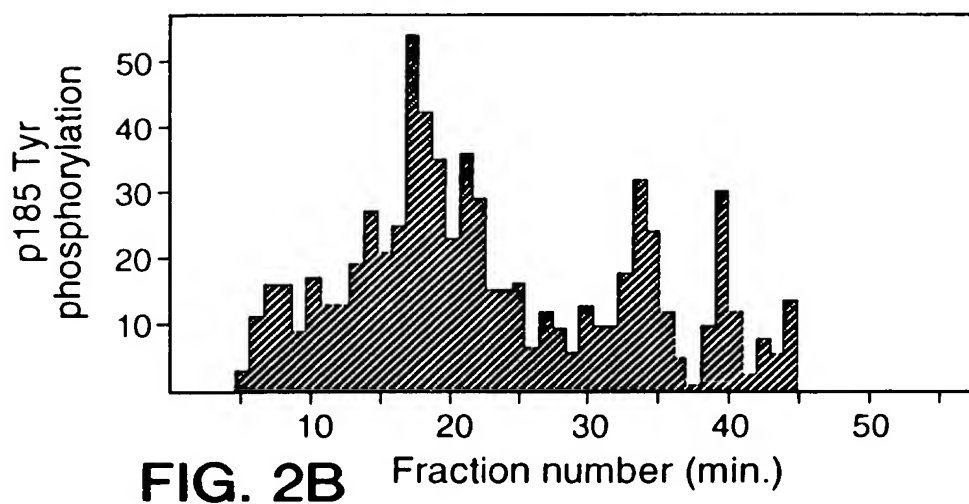
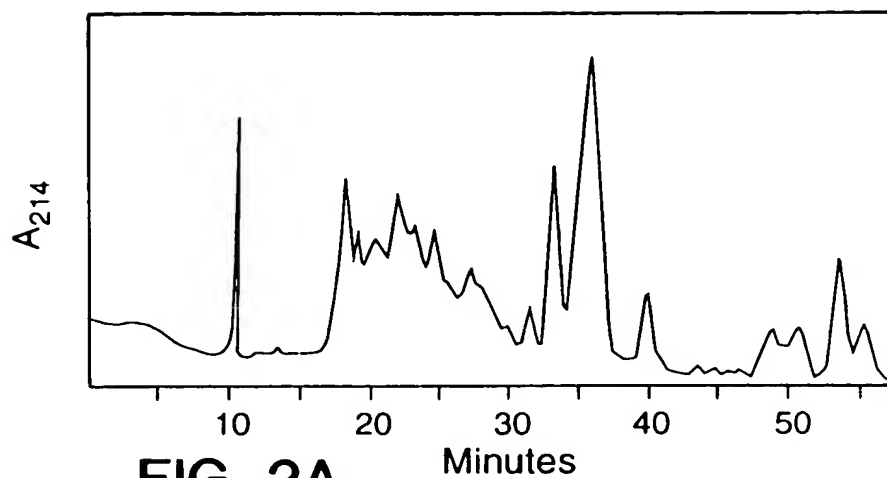
[illegible]

FIG. 1



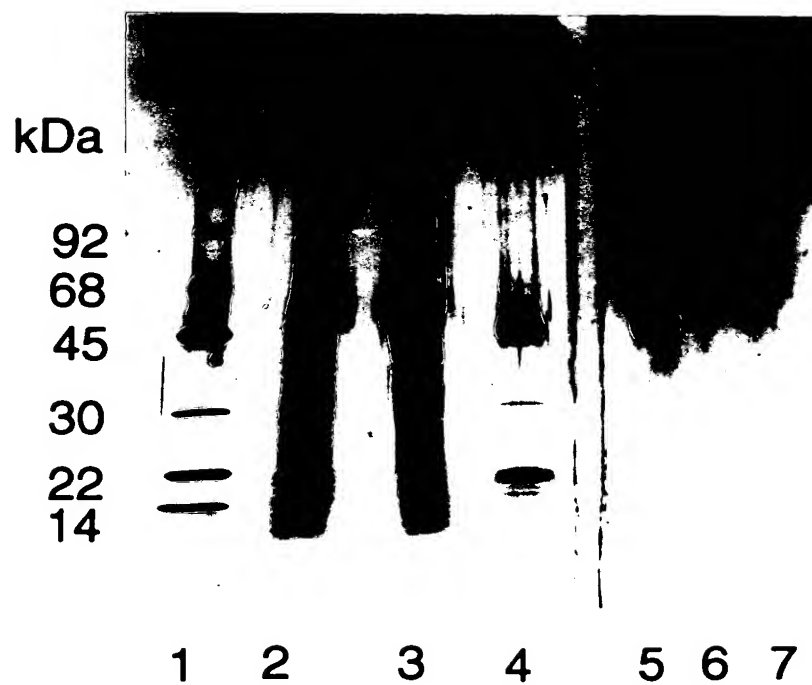


FIG. 3

GG	GCG	CGA	GCG	CCT	CAG	CGC	GGC	CGC	TCG	CTC	TCC	CCC	38
	Ala	Arg	Ala	Pro	Gln	Arg	Gly	Arg	Ser	Leu	Ser	Pro	
	1				5					10			
TCG	AGG	GAC	AAA	CTT	TTC	CCA	AAC	CCG	ATC	CGA	GCC	CTT	77
Ser	Arg	Asp	Lys	Leu	Phe	Pro	Asn	Pro	Ile	Arg	Ala	Leu	
		15					20					25	
GGA	CCA	AAC	TCG	CCT	GCG	CCG	AGA	GCC	GTC	CGC	GTA	GAG	116
Gly	Pro	Asn	Ser	Pro	Ala	Pro	Arg	Ala	Val	Arg	Val	Glu	
				30					35				
CGC	TCC	GTC	TCC	GGC	GAG	ATG	TCC	GAG	CGC	AAA	GAA	GGC	155
Arg	Ser	Val	Ser	Gly	Glu	Met	Ser	Glu	Arg	Lys	Glu	Gly	
	40					45					50		
AGA	GGC	AAA	GGG	AAG	GGC	AAG	AAG	AAG	GAG	CGA	GGC	TCC	194
Arg	Gly	Lys	Gly	Lys	Gly	Lys	Lys	Lys	Glu	Arg	Gly	Ser	
			55					60					
GGC	AAG	AAG	CCG	GAG	TCC	GCG	GCG	GGC	AGC	CAG	AGC	CCA	233
Gly	Lys	Lys	Pro	Glu	Ser	Ala	Ala	Gly	Ser	Gln	Ser	Pro	
65					70					75			
GCC	TTG	CCT	CCC	CGA	TTG	AAA	GAG	ATG	AAA	AGC	CAG	GAA	272
Ala	Leu	Pro	Pro	Arg	Leu	Lys	Glu	Met	Lys	Ser	Gln	Glu	
		80					85					90	
TCG	GCT	GCA	GGT	TCC	AAA	CTA	GTC	CTT	CGG	TGT	GAA	ACC	311
Ser	Ala	Ala	Gly	Ser	Lys	Leu	Val	Leu	Arg	Cys	Glu	Thr	
				95					100				
AGT	TCT	GAA	TAC	TCC	TCT	CTC	AGA	TTC	AAG	TGG	TTC	AAG	350
Ser	Ser	Glu	Tyr	Ser	Ser	Leu	Arg	Phe	Lys	Trp	Phe	Lys	
	105					110					115		
AAT	GGG	AAT	GAA	TTG	AAT	CGA	AAA	AAC	AAA	CCA	CAA	AAT	389
Asn	Gly	Asn	Glu	Leu	Asn	Arg	Lys	Asn	Lys	Pro	Gln	Asn	
			120					125					
ATC	AAG	ATA	CAA	AAA	AAG	CCA	GGG	AAG	TCA	GAA	CTT	CGC	428
Ile	Lys	Ile	Gln	Lys	Lys	Pro	Gly	Lys	Ser	Glu	Leu	Arg	
130					135					140			
ATT	AAC	AAA	GCA	TCA	CTG	GCT	GAT	TCT	GGA	GAG	TAT	ATG	467
Ile	Asn	Lys	Ala	Ser	Leu	Ala	Asp	Ser	Gly	Glu	Tyr	Met	
		145					150					155	
TGC	AAA	GTG	ATC	AGC	AAA	TTA	GGA	AAT	GAC	AGT	GCC	TCT	506
Cys	Lys	Val	Ile	Ser	Lys	Leu	Gly	Asn	Asp	Ser	Ala	Ser	
				160					165				

FIG. 4A

GCC Ala	AAT Asn 170	ATC Ile	ACC Thr	ATC Ile	GTG Val	GAA Glu 175	TCA Ser	AAC Asn	GAG Glu	ATC Ile	ATC Ile 180	ACT Thr	545
GGT Gly	ATG Met	CCA Pro	GCC Ala 185	TCA Ser	ACT Thr	GAA Glu	GGA Gly	GCA Ala 190	TAT Tyr	GTG Val	TCT Ser	TCA Ser	584
GAG Glu 195	TCT Ser	CCC Pro	ATT Ile	AGA Arg	ATA Ile 200	TCA Ser	GTA Val	TCC Ser	ACA Thr	GAA Glu 205	GGA Gly	GCA Ala	623
AAT Asn	ACT Thr	TCT Ser 210	TCA Ser	TCT Ser	ACA Thr	TCT Ser	ACA Thr 215	TCC Ser	ACC Thr	ACT Thr	GGG Gly	ACA Thr 220	662
AGC Ser	CAT His	CTT Leu	GTA Val	AAA Lys 225	TGT Cys	GCG Ala	GAG Glu	AAG Lys	GAG Glu 230	AAA Lys	ACT Thr	TTC Phe	701
TGT Cys	GTG Val 235	AAT Asn	GGA Gly	GGG Gly	GAG Glu	TGC Cys 240	TTC Phe	ATG Met	GTG Val	AAA Lys	GAC Asp 245	CTT Leu	740
TCA Ser	AAC Asn	CCC Pro	TCG Ser 250	AGA Arg	TAC Tyr	TTG Leu	TGC Cys	AAG Lys 255	TGC Cys	CAA Gln	CCT Pro	GGA Gly	779
TTC Phe 260	ACT Thr	GGA Gly	GCA Ala	AGA Arg	TGT Cys 265	ACT Thr	GAG Glu	AAT Asn	GTG Val	CCC Pro 270	ATG Met	AAA Lys	818
GTC Val	CAA Gln 275	AAC Asn	CAA Gln	GAA Glu	AAG Lys	GCG Ala	GAG Glu 280	GAG Glu	CTG Leu	TAC Tyr	CAG Gln 285	AAG Lys	857
AGA Arg	GTG Val	CTG Leu	ACC Thr	ATA Ile 290	ACC Thr	GGC Gly	ATC Ile	TGC Cys	ATC Ile 295	GCC Ala	CTC Leu	CTT Leu	896
GTG Val	GTC Val 300	GGC Gly	ATC Ile	ATG Met	TGT Cys	GTG Val 305	GTG Val	GCC Ala	TAC Tyr	TGC Cys	AAA Lys 310	ACC Thr	935
AAG Lys	AAA Lys	CAG Gln 315	CGG Arg	AAA Lys	AAG Lys	CTG Leu	CAT His	GAC Asp 320	CGT Arg	CTT Leu	CGG Arg	CAG Gln	974
AGC Ser 325	CTT Leu	CGG Arg	TCT Ser	GAA Glu	CGA Arg 330	AAC Asn	AAT Asn	ATG Met	ATG Met	AAC Asn 335	ATT Ile	GCC Ala	1013

FIG. 4B

AAT	GGG	CCT	CAC	CAT	CCT	AAC	CCA	CCC	CCC	GAG	AAT	GTC	1052
Asn	Gly	Pro	His	His	Pro	Asn	Pro	Pro	Pro	Glu	Asn	Val	
		340					345					350	
CAG	CTG	GTG	AAT	CAA	TAC	GTA	TCT	AAA	AAC	GTC	ATC	TCC	1091
Gln	Leu	Val	Asn	Gln	Tyr	Val	Ser	Lys	Asn	Val	Ile	Ser	
				355					360				
AGT	GAG	CAT	ATT	GTT	GAG	AGA	GAA	GCA	GAG	ACA	TCC	TTT	1130
Ser	Glu	His	Ile	Val	Glu	Arg	Glu	Ala	Glu	Thr	Ser	Phe	
	365					370					375		
TCC	ACC	AGT	CAC	TAT	ACT	TCC	ACA	GCC	CAT	CAC	TCC	ACT	1169
Ser	Thr	Ser	His	Tyr	Thr	Ser	Thr	Ala	His	His	Ser	Thr	
			380					385					
ACT	GTC	ACC	CAG	ACT	CCT	AGC	CAC	AGC	TGG	AGC	AAC	GGA	1208
Thr	Val	Thr	Gln	Thr	Pro	Ser	His	Ser	Trp	Ser	Asn	Gly	
390					395					400			
CAC	ACT	GAA	AGC	ATC	CTT	TCC	GAA	AGC	CAC	TCT	GTA	ATC	1247
His	Thr	Glu	Ser	Ile	Leu	Ser	Glu	Ser	His	Ser	Val	Ile	
		405					410					415	
GTG	ATG	TCA	TCC	GTA	GAA	AAC	AGT	AGG	CAC	AGC	AGC	CCA	1286
Val	Met	Ser	Ser	Val	Glu	Asn	Ser	Arg	His	Ser	Ser	Pro	
				420					425				
ACT	GGG	GGC	CCA	AGA	GGA	CGT	CTT	AAT	GGC	ACA	GGA	GGC	1325
Thr	Gly	Gly	Pro	Arg	Gly	Arg	Leu	Asn	Gly	Thr	Gly	Gly	
	430					435					440		
CCT	CGT	GAA	TGT	AAC	AGC	TTC	CTC	AGG	CAT	GCC	AGA	GAA	1364
Pro	Arg	Glu	Cys	Asn	Ser	Phe	Leu	Arg	His	Ala	Arg	Glu	
			445					450					
ACC	CCT	GAT	TCC	TAC	CGA	GAC	TCT	CCT	CAT	AGT	GAA	AGG	1403
Thr	Pro	Asp	Ser	Tyr	Arg	Asp	Ser	Pro	His	Ser	Glu	Arg	
	455				460					465			
TAT	GTG	TCA	GCC	ATG	ACC	ACC	CCG	GCT	CGT	ATG	TCA	CCT	1442
Tyr	Val	Ser	Ala	Met	Thr	Thr	Pro	Ala	Arg	Met	Ser	Pro	
		470					475					480	
GTA	GAT	TTC	CAC	ACG	CCA	AGC	TCC	CCC	AAA	TCG	CCC	CCT	1481
Val	Asp	Phe	His	Thr	Pro	Ser	Ser	Pro	Lys	Ser	Pro	Pro	
				485					490				
TCG	GAA	ATG	TCT	CCA	CCC	GTG	TCC	AGC	ATG	ACG	GTG	TCC	1520
Ser	Glu	Met	Ser	Pro	Pro	Val	Ser	Ser	Met	Thr	Val	Ser	
	495					500					505		

FIG. 4C

ATG	CCT	TCC	ATG	GCG	GTC	AGC	CCC	TTC	ATG	GAA	GAA	GAG	1559
Met	Pro	Ser	Met	Ala	Val	Ser	Pro	Phe	Met	Glu	Glu	Glu	
			510					515					
AGA	CCT	CTA	CTT	CTC	GTG	ACA	CCA	CCA	AGG	CTG	CGG	GAG	1598
Arg	Pro	Leu	Leu	Leu	Val	Thr	Pro	Pro	Arg	Leu	Arg	Glu	
520					525					530			
AAG	AAG	TTT	GAC	CAT	CAC	CCT	CAG	CAG	TTC	AGC	TCC	TTC	1637
Lys	Lys	Phe	Asp	His	His	Pro	Gln	Gln	Phe	Ser	Ser	Phe	
		535					540					545	
CAC	CAC	AAC	CCC	GCG	CAT	GAC	AGT	AAC	AGC	CTC	CCT	GCT	1676
His	His	Asn	Pro	Ala	His	Asp	Ser	Asn	Ser	Leu	Pro	Ala	
				550					555				
AGC	CCC	TTG	AGG	ATA	GTG	GAG	GAT	GAG	GAG	TAT	GAA	ACG	1715
Ser	Pro	Leu	Arg	Ile	Val	Glu	Asp	Glu	Glu	Tyr	Glu	Thr	
560						565					570		
ACC	CAA	GAG	TAC	GAG	CCA	GCC	CAA	GAG	CCT	GTT	AAG	AAA	1754
Thr	Gln	Glu	Tyr	Glu	Pro	Ala	Gln	Glu	Pro	Val	Lys	Lys	
			575					580					
CTC	GCC	AAT	AGC	CGG	CGG	GCC	AAA	AGA	ACC	AAG	CCC	AAT	1793
Leu	Ala	Asn	Ser	Arg	Arg	Ala	Lys	Arg	Thr	Lys	Pro	Asn	
585					590					595			
GGC	CAC	ATT	GCT	AAC	AGA	TTG	GAA	GTG	GAC	AGC	AAC	ACA	1832
Gly	His	Ile	Ala	Asn	Arg	Leu	Glu	Val	Asp	Ser	Asn	Thr	
		600					605					610	
AGC	TCC	CAG	AGC	AGT	AAC	TCA	GAG	AGT	GAA	ACA	GAA	GAT	1871
Ser	Ser	Gln	Ser	Ser	Asn	Ser	Glu	Ser	Glu	Thr	Glu	Asp	
				615					620				
GAA	AGA	GTA	GGT	GAA	GAT	ACG	CCT	TTC	CTG	GGC	ATA	CAG	1910
Glu	Arg	Val	Gly	Glu	Asp	Thr	Pro	Phe	Leu	Gly	Ile	Gln	
625						630					635		
AAC	CCC	CTG	GCA	GCC	AGT	CTT	GAG	GCA	ACA	CCT	GCC	TTC	1949
Asn	Pro	Leu	Ala	Ala	Ser	Leu	Glu	Ala	Thr	Pro	Ala	Phe	
			640					645					
CGC	CTG	GCT	GAC	AGC	AGG	ACT	AAC	CCA	GCA	GGC	CGC	TTC	1988
Arg	Leu	Ala	Asp	Ser	Arg	Thr	Asn	Pro	Ala	Gly	Arg	Phe	
650					655					660			
TCG	ACA	CAG	GAA	GAA	ATC	CAG	G						2010
Ser	Thr	Gln	Glu	Glu	Ile	Gln							
		665				669							

FIG. 4D

231 SKBR3

polyA: — + — +

Kb

9.4 —

6.4 —

2.8 —

1.8 —

— 5.9kb

FIG. 5

HRG2-alpha	221	S	H	L	V	K	C	A	E	K	E	K	T	F	C	V	N	G	G	E	C	F	M	V	K	D	L	S	N	P	S	R	Y	L	C	K	C	Q	P	G	F	T	G	A	R	C	T	E	N
EGF		N	S	D	S	E	C	P	L	S	H	D	G	Y	C	L	H	D	G	V	C	M	Y	I	E	A	L	-	-	-	D	K	Y	A	C	N	C	V	V	G	Y	I	G	E	R	C	Q	Y	R
TGF-alpha					N	D	C	P	D	S	H	T	Q	F	C	F	H	-	G	T	C	R	F	L	V	Q	E	-	-	-	D	K	P	A	C	V	C	H	S	G	Y	V	G	A	R	C	E	H	A
Amphiregulin		K	K	K	N	P	C	N	A	E	F	Q	N	F	C	I	H	-	G	E	C	K	Y	I	E	H	L	-	-	-	E	A	V	T	C	K	C	Q	Q	E	Y	F	G	E	R	C	G	E	K
Schwannoma		K	K	K	N	P	C	A	A	K	F	Q	N	F	C	I	H	-	G	E	C	R	Y	I	E	N	L	-	-	-	E	V	T	C	H	C	H	Q	D	Y	F	G	E	R	C	G	E	K	
HB-EGF		K	K	R	D	P	C	L	R	K	Y	K	D	F	C	I	H	-	G	E	C	K	Y	V	K	E	L	-	-	-	R	A	P	S	C	I	C	H	P	G	Y	H	G	E	R	C	H	G	L

HRG2-alpha	270	V	P	M	K	V	Q	N	Q	E	K	A	E	E	L	Y	Q	K	R	V	L	T	I	T	G	I	C	I	A	L	L	V	V	G	I	M	C	V	V	A	Y	C	K	T	K	K	Q	R	.	.
EGF		D	L	K	W	E	L	R	H	A	G	H	G	Q	Q	-	K	-	-	-	V	I	V	A	V	C	V	V	L	V	M	L	L	L	L	L	S	L	W	G	A	H	Y	Y	R	T	Q	K		
TGF-alpha		D	L	L	A	V	A	S	Q	K	-	-	-	-	-	-	-	-	-	K	Q	A	I	T	A	L	V	V	S	I	V	A	L	A	V	L	I	I	T	C	V	L	I	H	C	C	Q	V		
Amphiregulin		S	M	K	T	H	S	M	I	D	S	S	L	S	-	-	-	-	-	K	I	A	L	A	I	A	F	M	S	A	V	I	L	T	A	V	A	V	I	T	V	Q	L	R	R	Q	Y			
Schwannoma		T	M	K	T	Q	K	K	D	S	D	L	S	-	-	-	-	-	-	K	I	A	L	A	I	I	V	F	V	S	A	V	S	V	A	A	I	G	I	I	T	A	V	L	L	R	K	R		
HB-EGF		S	L	P	V	E	N	R	L	Y	T	Y	D	-	-	-	-	-	-	H	T	T	I	L	A	V	V	A	V	V	L	S	S	V	C	L	L	V	I	V	G	L	L	M	F	R	Y	H	R	

TRANSMEMBRANE REGION

FIG. 6

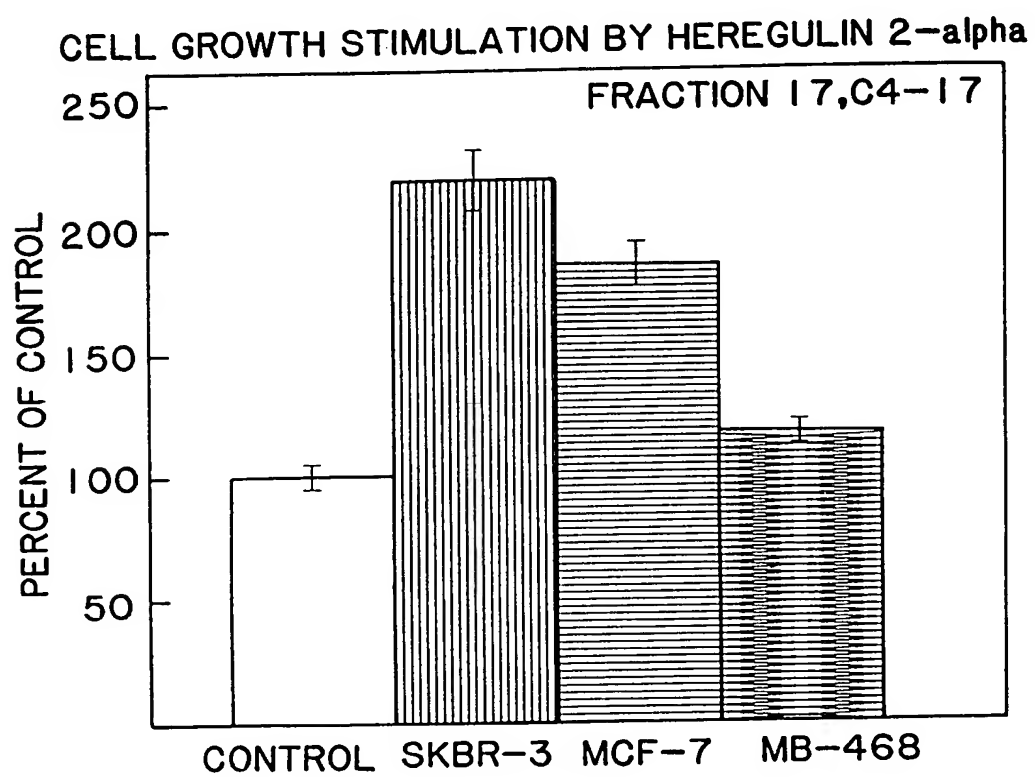


FIG. 7

(L) X R Q P K Y P R K S A P R R N K L D H Y A I I K F P L (T)
1 5 10 15 20 25

FIG. 8